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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/769,761	01/26/2001	Mark T. Wajer	46396-628	7396

7590 11/20/2002  
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PORTLAND, OR 97205

EXAMINER

ALVO, MARC S

ART UNIT	PAPER NUMBER
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1731

12

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/769,761

Applicant(s)

WAJER ET AL.

Examiner

Steve Alvo

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-929)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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The Canadian patent has been removed as a reference in view of the 131 Affidavit.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11, 13, 14, 16-27, 29, 30, 32-42, 44, 45, 47 and 48 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over FOSSUM.

FOSSUM teaches providing a slurry (1-50% consistency, see column 5, lines 12-16) of any pulping process, including mechanical pulp (semichemical pulp) and combining the mechanical pulp with a hydrogen peroxide bleaching agent and a chelating agent, e.g. ethylene diamine triacetic acid (EDTA) or diethylene triaminepentaacetic acid (DTPA). FOSSUM teaches that the effect of the chelating agent can be improved by inhibiting the cellulose degradation and reduction in pulp viscosity by adding to the complexing agent a magnesium salt (0.01 to 5.0 g/l, column 6, lines 55-58), e.g. magnesium hydroxide or magnesium oxide (column 6, lines 47-52) and bleaching the pulp at a pH of less than 8.5, e.g. below 3.0 (column 5, lines 25-30) for a time of 1 to 300 (5 hours.), see column 5, line 50, at temperatures of 20-100 °C (68-212 °F). See Table V for ISO brightness “up to 75”, e.g. 61.9 and 74.6. If the semichemical pulp

of FOSSUM is not considered a mechanical pulp, then obvious to use a mechanical pulp as FOSSUM teach using pulp from any pulping process. The instant specification states that the process can be applied to "other pulping processes can be used, see instant specification, page 14, lines 7-11).

Claims 1-11, 13-27, 29-42 and 44- 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over FOSSUM in view of TAPPI Journal, page 232, Dec. 1987 or GARD.

FOSSUM teaches providing a slurry (1-50% consistency, see column 5, lines 12-16) of any pulping process, including mechanical pulp (semichemical pulp) and combining the mechanical pulp with a hydrogen peroxide bleaching agent and a chelating agent , e.g. ethylene diamine triacetic acid (EDTA) or diethylene triaminepentaacetic acid (DTPA). FGOSSUM teaches that the effect of the chelating agent can be improved by inhibiting the cellulose degradation and reduction in pulp viscosity by adding to the complexing agent a magnesium salt (0.01 to 5.0 g/l, column 6, lines 55-58), e.g. magnesium hydroxide or magnesium oxide (column 6, lines 47-52) and bleaching the pulp at a pH of less than 8.5, e.g. below 3.0 (column 5, lines 25-30) for a time of 1 to 300 (5 hours.), see column 5, line 50, at temperatures of 20-100 °C (68-212 °F). See Table V for ISO brightness "up to 75", e.g. 61.9 and 74.6. Obviously the semimechanical pulp of FOSSUM is a mechanical pulp as TAPPI J. teaches that mechanical pulps include semichemical pulps, e.g. SCMPO, CTMP, CRMP, BCMP, HYS, UHYS and VHYBS. Or it would have been obvious to use mechanical pulp instead of the sulfite pulp of FOSSUM as GARD teaches (claim 3) the alternativeness of peroxide bleaching of mechanical or chemical pulps, e.g. sulfite pulps. It would have been obvious to maximize the surface area of the particles of FOSSUM as it is well known that larger surface areas provide more uniform

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reactions due to the increased surface area. How does the claimed surface area compare to conventional magnesium particles used in bleaching?

Claims 1-14, 16-30, 32-45, 47 and 48 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over LINDAHL.

LINDAHL teaches providing a slurry (0.5-1.0 % consistency, see column 4, lines 37-38) of mechanical pulp and combining the mechanical pulp with a spent hydrogen peroxide bleaching agent and a chelating agent, e.g. ethylene diamine triacetic acid (EDTA) or diethylene triaminepentaacetic acid (DTPA). FOSSUM teaches that the effect of the chelating agent can be improved by inhibiting the cellulose degradation by adding with the complexing agent a magnesium compound (0.01 to 0.5 percent, column 3, lines 4-15), e.g. magnesium hydroxide or magnesium oxide (column 3, lines 7-8) and bleaching the pulp at a pH of less than 8.5, e.g. above 7.0 to 9.0 (column 2, lines 3-6) for a time of 2-5 hours, see column 5, line 50, at temperatures of 45-65 °C (113-149 °F). See column 6, lines 11-19 teach brightness values of 70.2 SCAN. Any difference would have been an obvious modification of LINDAHL. See 13, 14 and 15 of LINDAHL for adding the peroxide bleaching liquor to the mechanical pulp.

Claims 15, 31 and 46 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over LINDAHL.

It would have been obvious to maximize the surface area of the particles of LINDAHL as it is well known that larger surface areas provide more uniform reactions due to the increased surface area. How does the claimed surface area compare to conventional magnesium particles used in bleaching?

Claims 15, 31 and 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear what the term "BET" represents. Surface area is normally in units of m. sq..

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Any inquiry concerning this communication or earlier communications from the **primary examiner** should be directed to **Steve Alvo** whose telephone number is **(703) 308-2048**. The Examiner can normally be reached on Monday - Friday from **6:00 AM - 2:30 PM (EST)**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Steve Griffin, can be reached on 703-308-1164.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Group receptionist** whose telephone number is **703-308-0661**.

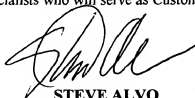
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**STEVE ALVO**  
**PRIMARY EXAMINER**  
**ART UNIT 1731**

MSA

11/17/02